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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,051	07/18/2003	Gunther Michael	032301.0901	3961

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EXAMINER	
METZMAIER, DANIEL S	

ART UNIT	PAPER NUMBER
1712	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/623,051	MICHAEL ET AL.	
	Examiner	Art Unit	
	Daniel S. Metzmaier	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/18/03; 11/12/03; 3/12/04; 7/19/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/740,039.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/18 & 11/12/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-2, 4-5, and 10-12 are pending.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/740,039, filed on December 20, 2000.

Information Disclosure Statement

2. The references crossed through on the Form PTO-1449 filed July 18, 2003 are duplicate citations that were cited and considered on the Form PTO-1449 filed Nov. 12, 2003. Both are enclosed with this Action.

Specification

3. The disclosure is objected to because of the following informalities:

The cross-noting section of the specification should be updated to reflect the current status of the parent application.

The European patent number[1] at page 1, line 8, of the instant specification should be checked and/or corrected since it corresponds to a motor drive for a sliding door mechanism rather than compacted hydrophilic silica as characterized.

The substructures set forth at page 2 of the instant specification should more clearly set forth the Aerosil they correspond and indicate appropriate bonds as open bonds and/or between elemental atoms.

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[1] It appears applicants may intend EP 0 280 851 B1 referred to at page 2, line 2 of the instant specification.

Table 1 is referred to on page 3 but no table is labeled "Table 1". Applicants should label the tables corresponding to any references in the description of the data set forth therein, e.g., Table 1 and/or Table 1 (continued).

Applicants should indicate what the column "PA" refers in tables on pages 4 and 5. The abbreviation "(UT)" or the parenthetical numbers in the table on page 6, on page 8 or the table on page 9 have not been defined.

At pages 8, lines 6-8; it is unclear where "the graph" referred to in line 6 refers. The parenthetical values "(0965)" and "(0955)" are undefined. See also Tables in examples 2 and 3. Applicants should correct and/or clarify said citations.

Appropriate correction is required.

Claim interpretation

4. Claims 1-2 and 4 are directed to a hydrophobic, pyrogenically produced silica. Claim 10 is directed to a dispersion of hydrophobic, pyrogenically produced silica produced by the process of claim 5. Claims 1-2, 4, 10, and 12 are directed to compositions drafted in product-by-process format. For products drafted in product-by-process format, the determination of patentability is based on the product itself. Please see MPEP 2113.

Claims 5 and 11 are directed to processes for the production of hydrophobic, pyrogenically produced silica and a dispersion of hydrophobic, pyrogenically produced silica.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10 is indefinite as to the claim's metes and bounds because claim 10 is directed to a dispersion of hydrophobic, pyrogenically produced silica produced by the process of claim 5. Claim 5 appears to result in a silica product and fails to recite steps or a dispersing media that would result in a dispersion. Claim 10 appears to be incomplete. Claim 10 may be contrast with claim 11, which is directed to a method of making a dispersion by dispersing the materials of claim 1 in an organic solvent.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action. Paragraphs (e) are included as they pertain to Hartmann et al relied on below:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-2, 4, 10, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anticipated by Degussa AG, EP 0 808 880 A2 (hereafter Degussa), as evidenced by Hartmann et al, US 5,959,005[2]. Hartmann et al is a patent family member of Degussa '880 and is used as translation evidence of the Degussa '880 disclosure. The citations refer to those set forth in Hartmann et al but the disclosure are considered to be the same or substantially the same.

Hartmann et al and Degussa (example) disclose the treatment of Aerosil 200, a pyrogenically produced silica produced by Degussa AG, was hydrophobically surface treated with hexamethyldisilazane followed by being compressed mechanically. Said hydrophobic silica is disclosed as having a tamped density of between 50 and 300 which 188 grams/liter exemplified.

[2] Degussa has a publication date of 26 November 1997 and qualifies as prior art under 35 USC 102(b) whereas Hartmann et al qualifies as prior art under 35 USC 102(e).

Hartmann et al and Degussa (column 1, lines 47 et seq) disclose the use of the silica in low viscosity liquid systems that would require the formation of a dispersion as claimed.

While applicants attach an excerpt of a document in German in their preliminary remarks (filed March 12, 2004) and assert ball milling destroys the silica aggregate structure and the thickening effect is no further available. (1) Initially, the document cannot be properly evaluated as it is not in the English language and an English language equivalent or English language translation has not been provided. (2) The claims do not define the structure or the thickening effect and it has not been shown that the instant methods necessarily result in a different product. The claims also do not exclude further milling. (3) It has furthermore not been shown the instant compositions are not made by the prior art process employing vertical ball mill compaction.

To the extent the Hartmann et al and Degussa products differ from the claims in the structure and/or properties, some variation of the structure and/or properties would have been expected from batch to batch as an obvious variation contemplated in the Hartmann et al and Degussa references. Said difference has not been shown to be a patentable difference. Attention is directed to MPEP 2113.

Claim 11 is implicitly disclosed for the Hartmann et al and Degussa disclosed use of the materials as additives in silicone rubber systems, adhesives, molding compounds, jointing compounds, paints, gels, liquid plastic systems among others.

11. Claims 1-2, 4, 10, and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anticipated by Nippon

Aerojiru KK, JP 06-087609, as evidenced by Machine Translation (Paterra Instant MT Machine Translation, Date of Translation unavailable). Nippon Aerojiru KK ([0005] and examples) discloses hydrophobic pyrogenic silica having densities of 80-300 g/ℓ and ([0008] and examples, particularly example 3) having been reacted with halogen free silanes including trimethylsilane ethoxide or trimethylsilane methoxide.

While applicants attach an excerpt of a document in German in their preliminary remarks (filed March 12, 2004) and assert ball milling destroys the silica aggregate structure and the thickening effect is no further available. (1) Initially, the document cannot be properly evaluated as it is not in the English language and an English language equivalent or English language translation has not been provided. (2) The claims do not define the structure or the thickening effect and it has not been shown that the instant methods necessarily result in a different product. The claims also do not exclude further milling. (3) It has furthermore not been shown the instant compositions are not made by the prior art process employing vertical ball mill compaction.

To the extent the Nippon Aerojiru KK products differ from the claims in the structure and/or properties, some variation of the structure and/or properties would have been expected from batch to batch as an obvious variation contemplated in the Nippon Aerojiru KK reference. Said difference has not been shown to be a patentable difference. Attention is directed to MPEP 2113.

Claim 11 is implicitly disclosed for the Nippon Aerojiru KK disclosed use of the materials as additives in silicone oil to determine .

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Degussa AG, EP 0 808 880 A2 (hereafter Degussa), as evidenced by Hartmann et al, US 5,959,005, or Nippon Aerojiru KK, JP 06-087609, as evidenced by Machine Translation (Paterra Instant MT Machine Translation, Date of Translation unavailable), each optionally further in view of Klingle et al., US 4,877,595[3] or the Reinhardt et al, US 3,860,682.

Hartmann et al and Degussa (example and claims) disclose pyrogenically produced silica hydrophobically surface treated with hexamethyldisilazane followed by being compressed mechanically.

Hartmann et al and Degussa differ from the claims in the particular type of compaction method employed in compacting the silica. Hartmann et al and Degussa (example) disclose compressing the silica on a continuously operating vertical ball mill rather than the claimed roller compactor or belt filter press.

Nippon Aerojiru KK ([0005] and examples) discloses hydrophobic pyrogenic silica having densities of 80-300 g/ℓ and ([0008] and examples, particularly example 3) having been reacted with halogen free silanes including trimethylsilane ethoxide or trimethylsilane methoxide. Nippon Aerojiru KK ([0010]) discloses the use of ball, conical, or tower mills.

The roller compactor or belt filter press are conventionally known methods of compressing and/or compacting particulate materials and have not been shown nor disclosed to be unobvious over the use of the exemplified continuously operating

[3] Klingle et al., US 4,877,595, is a patent family member of EP 0 280 851 B1 instantly disclosed and

vertical ball mill. It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ conventional compress steps in making the compressed silicas in accordance with the methods disclosed in the Hartmann et al and Degussa references for their use as functional equivalent method steps of compressing the Hartmann et al and Degussa silica materials.

Klingle et al discloses methods of compressing pyrogenic silica and is a roller compactor and/or a belt filter press as claimed. Klingle et al (column 1) further teaches roller compactors as mechanical compressing methods. Klingle et al (column 4, lines 1-26) discloses the compressing of Aerosil R 972 to a value of 90-120 g/l. Aerosil R 972 is a hydrophobicized pyrogenic silica.

Reinhardt et al (figures and column 1) discloses roller compactors for the treatment of surface active fillers including silicium oxide for the advantage of increasing the volumetric weight without destroying or adversely influencing their specific characteristics. Said treatment is further taught as advantageous for the purpose of transportation and storage of the materials taught for treatment.

These references are combinable because they teach mechanical compressing methods of treating pyrogenic silica and processes and compositions produced therein. It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ either a roller compactor or belt filter press method of mechanically compressing the pyrogenic silica taught in the Hartmann et al and Degussa references.

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employed by applicants as a compressing method.

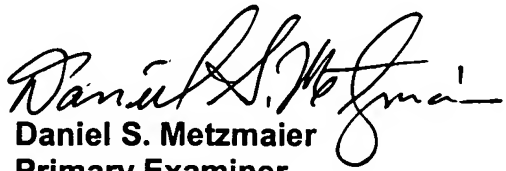
Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM